

What is claimed is:

1. A lead frame apparatus for holding IC packages during IC package processing comprising:

- 5           a substantially flat thin strip of conductive material having substantially parallel sides and square ends forming the lead frame apparatus;  
          a strip of adhesive material adhered to one surface of lead frame apparatus, the overall dimensions of the strip substantially the same as the overall dimensions of the lead frame apparatus;
- 10           a plurality of die-attach pads arranged on the non-adhesive surface of the lead frame apparatus, the pads for receiving IC packages for encapsulation by molding; and  
          at least one geometric area of material alteration formed in the conductive material forming the lead frame, the area located substantially at
- 15           either frame end, wherein a user accesses the strip of adhesive material through utilization of the material alteration for the purpose of removing the adhesive material from the surface of the lead frame.

20           2. The lead frame apparatus of claim 1, wherein the adhesive material is thermal resist tape.

25           3. The lead frame apparatus of claim 2, wherein the thermal resist tape after application to the frame is dimensionally equal to the overall dimensions of the frame.

          4. The lead frame apparatus of claim 3, wherein the material alteration is a perforated tab.

5. The lead frame apparatus of claim 4, wherein the geometric area defining the material alteration is rectangular.

5 6. The lead frame apparatus of claim 5, wherein the material alteration spans the entire width of the lead frame.

7. The lead frame apparatus of claim 5, wherein etching before application of the adhesive material produces the material alteration.

10

8. The lead frame apparatus of claim 3, wherein the material alteration is characterized by an absence of material.

9. A lead frame apparatus of claim 8, wherein a material removal process  
15 performed before application of the adhesive material produces the material alteration.

10. The lead frame apparatus of claim 9, wherein the geometric area defining the material alteration is rectangular.

20

11. The lead frame apparatus of claim 9, wherein the geometric area defining the material alteration is annular.

12. The lead frame apparatus of claim 4, wherein the geometric area  
25 defining the material alteration is annular.

13. The lead frame apparatus of claim 4, wherein the material alteration is defined by an array of separated geometric areas.

14. The lead frame apparatus of claim 9, wherein the material alteration is  
5 defined by an array of separated geometric areas.

15. The lead frame apparatus of claim 1, wherein heat is used during the process of removing the adhesive material from the lead frame.

10 16. Lead frame apparatus of claim 15, wherein the heat source is a hotplate having a length dimension extending at least the overall length dimension of the lead frame.

15 17. A method for removing thermal-resist tape from the underside of a lead frame used for chip scale packaging comprising the steps of:  
    (a) providing a perforated tab located at least at one end of the lead frame the tab incorporating an edge of the tape by virtue of being adhered thereto;  
    (b) grasping the perforated tab and separating it from the lead frame,  
20 the tab remaining adhered to the tape; and  
    (c) peeling the tape away from the surface of the lead frame using the perforated tab as a handle.

18. The method of claim 17 wherein in step (a), the perforated tab is formed  
25 by etching before application of the tape.

d of claim 19 who  
ing the lead fram  
d of claim 20 who  
g to at least the c

fram

21. The method of claim 20 wherein the heat source is a hotplate having a length extending to at least the overall length of the lead frame.